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FEDERAL - STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

# Oregon

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

U. S. DEPARTMENT OF AGRICULTURE

As of

FEB. 1, 1952

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

# FEDERAL-STATE COOPERATIVE

# SNOW SURVEYS AND IRRIGATION WATER FORECASTS

# FOR

# OREGON

Report Prepared
by

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Issued

February 9, 1952

Division of Irrigation
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P. O. Box 1149
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# PRELIMINARY WATER SUPPLY OUTLOOK FOR OREGON

February 1, 1952

The high mountain snow-pack, source of Oregon's 1952 water supplies, is generally twice as heavy as normal for this mid-winter date. Water content of the snow at 43 out of 83 measured snow courses broke all previous February 1 records. In 67 out of the 83 measured courses, water content is already greater than is usually found at the beginning of the melting season. Watershed soils are well wetted, but reservoired water is less than last year in 18 out of 22 reservoirs reported; however, several reservoirs are now being drawn down to provide for later expected runoff.

Water content of the mountain snow-cover, as of February 1, averages 194 percent of normal on 83 courses throughout the State, 156 percent of last year and 160 percent of one month ago. Above 5000 feet, the water contained in the snow is 156 percent of last year and 190 percent of average, while below 5000 feet, the water content is 157 percent of last year and 201 percent of average.

An unusually heavy accumulation of snow in the lower elevations of the Willamette Valley still poses a potential threat of high water for the lowlands if continued heavy rains or unusual melting conditions should occur. (See special snow profile reports on pages 18 through 20.) January flow of the Columbia River near The Dalles[1] was 148 percent of the median, while the flow of the Umpqua River near Elkton and the John Day River at Service Creek was 124 and 99 percent of the median, respectively. Watershed soils are apparently well "primed" for the coming melting season.

Total water stored in twenty-two reported reservoirs is 17 percent less than last year, 13 percent more than in 1950 and 6 percent less than average.

Preliminary stream flow forecasts presented on pages 2 and 3 of this report indicate that adequate water supplies should be available in all Oregon stream basins if average accumulation of snow continues in February and March.

[1] Preliminary data furnished by U. S. Geological Survey, Portland, Oregon.

# PRELIMINARY STREAMFLOW FORECASTS, FEBRUARY 1, 1952

The following preliminary runoff forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

| BASIN AND STREAM | April-Sept., inc., Forecast 1952 | | Streamflow in Thousand A.F. Measured Runoff* 1951 | 1950 | 1949 | 10-yr. Avg. 1941-50 |
|---|---|---|---|---|---|---|
| **NORTHCENTRAL OREGON** | | | | | | |
| Hood River at Powerdale plus Power Canal | 390.0 | a | 497.6 | 483.1 | | 318.8 |
| Hood River, W. Fk. near Dee | 205.0 | a | 228.6 | 225.1 | | 155.3 |
| White R. below Tygh Valley | 200.0 | a | 233.1 | 265.6 | | 155.0 |
| **UMATILLA-WALLA WALLA** | | | | | | |
| Walla Walla R., So.Fk.nr. Milton | 75.0 | a | a | 84.8 | | 70.4[b] |
| Umatilla River at Pendleton | 190.0 | a | a | 212.9 | | 179.2[b] |
| McKay Cr. above McKay Reservoir | 33.0 | a | 39.9 | 22.7 | | 31.9 |
| **NORTHEASTERN OREGON** | | | | | | |
| Grande Ronde R. nr. La Grande | 200.0 | a | 235.8 | 191.5 | | 199.2 |
| Catherine Creek near Union | 75.0 | a | a | 73.0 | | 72.4[b] |
| Bear Creek near Wallowa | 100.0 | a | 75.5 | 73.6 | | 73.2 |
| Lostine River near Lostine | 160.0 | a | 137.7 | 130.2 | | 127.8 |
| Hurricane Creek near Joseph | 60.0 | a | 42.8 | 48.6 | | 46.2 |
| Wallowa River, E. Fk. plus Power Plant | 17.0 | a | 10.8 | 11.3 | | 11.6 |
| Imnaha River at Imnaha | 500.0 | a | 287.7 | 254.0 | | 303.0 |
| Powder River at Salisbury | 75.0 | a | 66.1 | 70.0 | | 64.3 |
| Burnt River near Hereford (Natural Flow) | 50.0 | a | 49.7 | 47.0 | | 43.6 |
| **EASTERN OREGON** | | | | | | |
| Malheur River, Middle Fork near Drewsey | 130.0 | a | 63.3 | 68.5 | | 75.9 |
| Malheur River, N. Fk. at Beulah | 105.0 | a | 63.6 | 56.5 | | 62.2 |
| Owyhee R. above Owyhee Reservoir | 740.0[c] | a | 411.5[c] | 530.5[c] | | 504.0[c] |
| John Day R. at Prairie City, combined with Power Canal | 95.0 | a | 43.1 | 44.9 | | 52.9 |
| John Day R., Mid. Fk. at Ritter | 225.0 | a | 125.8 | 123.2 | | 127.4 |
| John Day R., No. Fk. near Dale | 425.0 | a | 267.7 | 288.2 | | 261.1 |
| Strawberry Cr. nr. Prairie City | 11.0 | a | 7.1 | 8.3 | | 8.4 |

[a] Discharge data not available.
[b] 1941-1949 average.
[c] March-July.
* Discharge data from preliminary records of U.S. Geological Survey and Oregon State Engineer.

Streamflow Forecasts, February 1952 (Cont'd)

| BASIN AND STREAM | April-Sept., inc., Streamflow in Thousand A.F. Forecast 1952 | Measured Runoff* 1951 | 1950 | 1949 | 10-yr. Avg. 1941-50 |
|---|---|---|---|---|---|
| **HARNEY BASIN** | | | | | |
| Silvies River near Burns | 100.0 | a | 83.8 | 79.1 | 97.7 |
| **CENTRAL OREGON** | | | | | |
| Ochoco Reservoir, Net Inflow | 45.0 | a | a | 33.3 | 29.6[b] |
| Crescent Lake, Net Inflow | 32.0 | a | 35.0 | 29.4 | 19.0 |
| Odell Creek near Crescent | 40.0 | a | 40.3 | 34.9 | 29.0 |
| Tumalo Creek and C. S. Canal | 62.0 | a | a | 58.1 | 46.6[b] |
| Squaw Creek near Sisters | 67.0 | a | 60.5 | 60.8 | 48.5 |
| **SOUTHCENTRAL OREGON** | | | | | |
| Deep Creek above Adel | 100.0[d] | a | 70.3[d] | 71.4[d] | 63.9[d] |
| **KLAMATH BASIN** | | | | | |
| Upper Klamath Lake, Net Inflow | 686.0 | 611.0 | 423.9 | 396.7 | 452.9 |
| **SOUTHERN OREGON** | | | | | |
| Hyatt Reservoir, Net Inflow | 8.0 | a | a | 7.6 | 5.8[b] |
| Fourmile Lake, Net Inflow | 10.6 | a | 8.6 | 8.5 | 8.1 |
| Little Butte Cr., N. Fk. below Fish Lake (Natural Flow) | 18.5 | a | a | 18.9 | 13.9[b] |
| Rogue River, N. Fk. above Prospect | 440.0 | 345.5 | 380.5 | 375.5 | 305.1 |
| Clearwater River above Trap Creek | 68.0 | a | 71.1 | 71.8 | 62.0 |
| No. Umpqua River below Lake Creek | 180.0 | a | 189.0 | 183.0 | 160.5 |
| No. Umpqua River at Toketee Falls | 440.0 | a | 472.1 | 458.7 | 373.4 |
| **WILLAMETTE VALLEY** | | | | | |
| Willamette River, Mid.Fk. at Eula | 1140.0 | a | 1125.0 | 1019.2 | 824.4 |
| McKenzie R. at McKenzie Bridge | 690.0 | a | 771.8 | 716.4 | 562.5 |
| McKenzie River near Vida | 1520.0 | a | 1725.2 | 1516.7 | 1214.0 |

[a]Discharge data not available.
[b]1941-1949 average.
[d]April-June rather than April-September.
*Discharge data from preliminary records of U.S. Geological Survey and Oregon State Engineer.

The following tabulation of Oregon stream basins presents the water content of the snow about February 1, 1952 as percent of the same date in 1951 and 1950 and average of record:

| DRAINAGE | No. of Courses Averaged | Yrs. of Record | February 1, 1952 Water Content as percent of 1951 | 1950 | Average |
|---|---|---|---|---|---|
| Owyhee River | 4 | 2-4 | 181 | 187 | 171 |
| Malheur River | 3 | 14-21 | 181 | 187 | 196 |
| Burnt River | 3 | 12-17 | 152 | 152 | 186 |
| Powder River | 2-3 | 3-13 | 149 | 151 | 168 |
| Pine Creek | 1 | 14 | 194 | 227 | 211 |
| Imnaha River | 2 | 10-22 | 168 | 164 | 197 |
| Grande Ronde River | 8-9 | 4-23 | 146 | 127 | 158 |
| Wallowa River | 2 | 10-22 | 168 | 164 | 197 |
| Catherine Creek | 1 | 14 | 138 | 123 | 135 |
| Main Grande Ronde | 5-6 | 4-23 | 130 | 100 | 135 |
| Walla Walla River | 1 | 20 | 132 | 121 | 146 |
| Umatilla River | 5 | 12-23 | 132 | 107 | 143 |
| Willow Creek | 1 | 22 | 146 | 122 | 175 |
| John Day River | 10 | 4-22 | 149 | 137 | 176 |
| North Fork | 4-5 | 4-22 | 133 | 124 | 168 |
| Middle Fork | 2 | 16-17 | 150 | 153 | 178 |
| Main Branch | 3 | 15-21 | 172 | 151 | 192 |
| South Fork | 1 | 16 | 198 | 144 | 181 |
| Crooked River | 3 | 14-22 | 144 | 113 | 188 |
| Deschutes River | 5-9 | 1-21 | 138 | 122 | 185 |
| Hood River | 2 | 4 | 123 | 115 | 122 |
| Willamette Valley | 9-12 | 2-21 | 139 | 98 | 197 |
| Sandy River | 2 | 14 | 115 | 92 | 158 |
| Clackamas River | 1 | 14 | 108 | 65 | 170 |
| Santiam Rivers | 3-4 | 8-14 | 142 | 100 | 200 |
| McKenzie River | 3 | 8-14 | 133 | 109 | 190 |
| Middle Fork | 2-4 | 2-21 | 164 | 113 | 237 |
| Coast Fork | 1 | 13 | 205 | 112 | 268 |
| Umpqua River | 3-5 | 1-22 | 162 | 124 | 193 |
| Rogue River | 13-17 | 4-20 | 187 | 149 | 238 |
| Upper Rogue | 5-6 | 6-19 | 153 | 149 | 217 |
| Bear-Little Butte Cr. | 6 | 4-20 | 210 | 141 | 223 |
| Applegate River | 2-5 | 10-16 | 214 | 158 | 262 |
| Illinois River | 1-2 | 13-14 | 336 | 182 | 361 |
| Klamath Lake Basin | 16-19 | 2-25 | 168 | 160 | 220 |
| Sprague River | 5-6 | 9-25 | 206 | 114 | 197 |
| Williamson River | 10-11 | 6-25 | 146 | 161 | 205 |
| Gerber-Clear Lake Basin | 2-4 | 2-22 | 210 | 131 | 184 |
| Goose Lake Basin | 3-4 | 9-22 | 212 | 164 | 210 |
| Warner Lake Basin | 1 | 13 | 215 | 237 | 233 |
| Chewaucan River | 1 | 22 | 202 | 188 | 231 |
| Silvies River | 5 | 14-19 | 193 | 174 | 207 |

STATUS OF OREGON RESERVOIR STORAGE - FEBRUARY 1, 1952

| BASIN and STREAM | RESERVOIR | USABLE CAPACITY (Thousand Acre Feet) | THOUSAND ACRE FEET IN STORAGE ABOUT FEBRUARY FIRST | | | | |
|---|---|---|---|---|---|---|---|
| | | | 1952 | 1951 | 1950 | 1949 | 10Yr.Avg. 1941-50 |
| **UPPER COLUMBIA DRAINAGE** | | | | | | | |
| **Lower Snake in Oregon** | | | | | | | |
| Owyhee | Antelope | 36.5 | N.R. | 16.8 | 1.0 | 0.0 | 2.3 |
| | Owyhee | 715.0 | 446.7 | 451.7 | 377.6 | 270.9 | 446.1 |
| Malheur | Warm Springs | 191.0 | 20.6 | 20.8 | 11.7 | 14.3 | 74.8 |
| | Agency Valley | 60.0 | 15.7 | 13.6 | 18.9 | 35.2 | 36.0 |
| | Willow Creek #3 | 21.0 | N.R. | N.R. | N.R. | N.R. | N.R. |
| Burnt | Unity | 25.2 | 5.4 | 8.8 | 2.4 | 8.5 | 8.4 |
| Powder | Thief Valley | 17.4 | N.R. | -- | -- | 2.1 | 12.2[d] |
| Grande Ronde | Wallowa Lake | 40.9 | 10.6 | 18.8 | 12.5 | 19.0 | 20.1 |
| **LOWER COLUMBIA DRAINAGE** | | | | | | | |
| Umatilla | McKay | 74.0 | 21.4 | 57.1 | 25.2 | 26.2 | 38.1 |
| | Cold Springs | 50.0 | 31.5 | 41.7 | 21.0 | 23.8 | 29.0 |
| Deschutes | Ochoco | 46.0 | 23.1 | 33.7 | 1.8 | 30.4 | 19.1 |
| | Crescent Lake | 54.9 | N.R. | 52.8 | 53.9 | 52.4 | 38.7 |
| | Crane Prairie | 55.3 | 39.3 | 50.0 | 35.0 | 34.7 | 33.0 |
| | Wickiup | 180.0 | 165.3 | 187.0 | 172.4 | 161.1 | 77.1[e] |
| Willamette | Dorena | 70.5[a] | 1.9 | 0.1 | 0.0 | -- | -- |
| | Cottage Grove | 30.1[a] | 0.2 | 0.0 | 0.1 | 0.0 | 0.1[e] |
| | Fern Ridge | 94.2[a] | 2.2 | 42.0 | 55.9 | 1.2 | 13.7[f] |
| **INTERIOR DRAINAGE** | | | | | | | |
| Silver Lake | Thompson Valley | 17.4 | N.R. | N.R. | N.R. | N.R. | N.R. |
| **WEST COAST DRAINAGE** | | | | | | | |
| Rogue | Fish Lake | 7.8 | 5.0 | 5.2 | 4.6 | 5.0 | 4.2 |
| | Fourmile Lake[b] | 16.1 | 6.2 | 11.4 | 7.0 | 7.2 | 5.4 |
| | Emigrant Gap | 8.3 | 4.9 | 6.4 | 4.0 | 5.3 | 5.1 |
| | Hyatt Prairie[b] | 16.1 | 3.2 | 4.7 | 3.7 | 7.1 | 4.3 |
| Klamath | Upper Klamath Lk. | 584.0[c] | 366.1 | 443.7 | 248.0 | 267.8 | 307.6 |
| | Gerber | 94.0 | 23.3 | 25.2 | 15.4 | 14.6 | 31.8 |
| | Clear Lake | 440.2 | 77.4 | 99.8 | 102.8 | 135.4 | 206.7 |
| Goose Lake | Cottonwood | 4.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.1 |
| | Drew | 62.5 | 35.3 | 48.0 | 36.2 | 37.3 | 34.7 |

N.R. - No Report.

[a] Storage space reserved for flood control.

[b] By ditch to Rogue River side from Klamath Drainage.

[c] Based on gage zero elevation of 4135.0

[d] 1941-1949.

[e] 1943-1950.

[f] 1942-1950.

## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | | | | | | | | | Same Approx. Date | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | 1951 | 1950 | Years of Record | Av. Water Content (Inches) |
| **UPPER COLUMBIA DRAINAGE** | | | | | | | | | | | | |
| LOWER SNAKE IN OREGON | | | | | | | | | | | | |
| OWYHEE RIVER | | | | | | | | | | | | |
| Rodeo Flat | Nev.8 | 36 | 43N | 53E | 6800 | 2/3 | 41.9 | 13.0 | 6.2 | 7.1 | 2 | 6.6 |
| Big Bend | Nev.6 | 30 | 45N | 56E | 6700 | 2/2 | 48.4 | 12.5 | 8.5 | 7.5 | 4 | 9.9 |
| Fry Canyon | Nev.7 | 31 | 43N | 54E | 6700 | 2/3 | 45.2 | 13.3 | 6.0 | 6.1 | 2 | 6.0 |
| Gold Creek | Nev.5 | 31 | 45N | 56E | 6600 | 2/2 | 36.2 | 8.4 | 5.2 | 4.5 | 3 | 5.2 |
| Silver City | Idaho12 | 6 | 5S | 3W | 6400 | Not measured | | | 12.9 | -- | 6 | 10.2 |
| South Mountain No.2 | Idaho13 | 35 | 7S | 5W | 6340 | Report delayed | | | 7.6[a] | 7.5 | 11 | 8.3 |
| MALHEUR RIVER | | | | | | | | | | | | |
| Blue Mountain Springs | 133 | 21 | 15S | 35E | 5900 | 1/30 | 59.0 | 19.1 | 10.4 | 9.1 | 21 | 9.6 |
| Rock Spring | 134 | 23 | 18S | 32E | 5100 | 1/27 | 31.1 | 8.2 | 4.3 | 4.2 | 16 | 4.4 |
| Stinking Water | 135 | 33 | 21S | 34E | 4800 | 1/30 | 25.9 | 6.9[b] | 4.2 | 4.9 | 14 | 3.4 |
| BURNT RIVER | | | | | | | | | | | | |
| Dooley Mountain | 156 | 32 | 11S | 40E | 5430 | 1/31 | 39.9 | 11.9 | 7.1 | 5.9 | 13 | 6.1 |
| *Gold Center | 249 | 21 | 9S | 36E | 5340 | 2/1 | 50.3 | 14.1 | 10.5 | 11.3 | 12 | 7.9 |
| Tipton | 142 | 34 | 10S | 35½E | 5100 | Report delayed | | | -- | -- | 15 | 7.1 |
| Blue Mountain Summit | 141 | 6 | 12S | 36E | 5098 | 2/1 | 39.8 | 11.0 | 6.8 | 7.0 | 17 | 5.9 |
| POWDER RIVER | | | | | | | | | | | | |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 | Report delayed | | | 16.5 | -- | 11 | 18.7 |
| Goodrich Lake | 157 | 34&35 | 8S | 38E | 6775 | 1/30 | 106.8 | 38.3[b] | 25.5 | -- | 3 | 24.2 |
| Bourne | 154 | 33 | 8S | 37E | 5800 | Measurement delayed | | | -- | -- | 12 | 9.0 |

*Not located directly on this drainage area.

[a]Telegraphic.

[b]Greatest February 1 water content recorded since began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
| POWDER RIVER (Cont'd) | | | | | | | | | | | | |
| Dooley Mountain | 156 | 32 | 11S | 40E | 5430 | 1/31 | 39.9 | 11.9 | 7.1 | 5.9 | 13 | 6.1 |
| Eilertson Meadows | 151B | 18 | 8S | 38E | 5400 | Measurement delayed | | | 15.3 | -- | 12 | 7.6 |
| *Gold Center | 249 | 21 | 9S | 36E | 5340 | 2/1 | 50.3 | 14.1 | 10.5 | 11.3 | 12 | 7.9 |
| PINE CREEK | | | | | | | | | | | | |
| Schneider Meadows | 161 | 35 | 6S | 45E | 5400 | 1/30 | 117.6 | 39.9[b] | 20.6 | 17.6 | 14 | 18.9 |
| IMNAHA RIVER | | | | | | | | | | | | |
| *Aneroid Lake No. 1 | 183 | 16 | 4S | 45E | 7480 | 1/26 | 113.4 | 40.8[b] | 24.1 | 26.2 | 22 | 19.7 |
| *Aneroid Lake No. 2 | 183A | 16 | 4S | 45E | 7000 | 1/26 | 87.0 | 33.1[b] | 20.0 | 18.8 | 10 | 17.8 |
| GRANDE RONDE RIVER | | | | | | | | | | | | |
| Aneroid Lake No. 1 | 183 | 16 | 4S | 45E | 7480 | 1/26 | 113.4 | 40.8[b] | 24.1 | 26.2 | 22 | 19.7 |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 | Report delayed | | | 16.5 | -- | 11 | 18.7 |
| Aneroid Lake No. 2 | 183A | 16 | 4S | 45E | 7000 | 1/26 | 87.0 | 33.1[b] | 20.0 | 18.8 | 10 | 17.8 |
| Camp Carson | 187 | 33 | 6S | 36E | 5970 | 2/3 | 37.9 | 10.2 | 6.3 | 9.6 | 9 | 7.0 |
| Moss Spring | 186A | 28 | 3S | 41E | 5850 | 2/1 | 67.1 | 20.5 | 14.8 | 16.7 | 14 | 15.2 |
| Beaver Reservoir | 188 | 8 | 5S | 37E | 5340 | 1/30 | 33.5 | 8.4 | 6.6 | 11.5[a] | 13 | 8.6 |
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1/29 | 73.1 | 24.9 | 18.9 | 20.5 | 20 | 17.1 |
| *Lucky Strike | 223 | 28 | 3S | 32E | 5050 | 1/31 | 39.4 | 10.6 | 10.0 | 10.9 | 12 | 8.2 |
| Schoolmarm | 248 | 28 | 4S | 34E | 4775 | 1/28 | 20.6 | 5.1[b] | 3.9 | -- | 4 | 2.5 |
| Meacham | 221 | 24&25 | 1S | 35E | 4300 | 1/29 | 29.7 | 8.0 | 6.2 | 9.4 | 23 | 6.3 |

*Not located directly on this drainage area. [b]Greatest February 1 water content recorded since surveys began.
[a]Telegraphic.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
| **LOWER COLUMBIA DRAINAGE** | | | | | | | | | | | | |
| WALLA WALLA RIVER | | | | | | | | | | | | |
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1/29 | 73.1 | 24.9 | 18.9 | 20.5 | 20 | 17.1 |
| UMATILLA RIVER | | | | | | | | | | | | |
| Arbuckle Mountain | 241 | 33 | 4S | 29E | 5400 | 1/29 | 41.6 | 13.1 | 9.0 | 10.7 | 22 | 7.5 |
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1/29 | 73.1 | 24.9 | 18.9 | 20.5 | 20 | 17.1 |
| Lucky Strike | 223 | 28 | 3S | 32E | 5050 | 1/31 | 39.4 | 10.6 | 10.0 | 10.9 | 12 | 8.2 |
| Meacham | 221 | 24&25 | 1S | 35E | 4300 | 1/29 | 29.7 | 8.0 | 6.2 | 9.4 | 23 | 6.3 |
| Emigrant Springs | 222 | 29 | 1N | 35E | 3925 | 1/29 | 28.5 | 7.8 | 4.8 | 8.9 | 23 | 5.9 |
| WILLOW CREEK | | | | | | | | | | | | |
| Arbuckle Mountain | 241 | 33 | 4S | 29E | 5400 | 1/29 | 41.6 | 13.1 | 9.0 | 10.7 | 22 | 7.5 |
| JOHN DAY RIVER | | | | | | | | | | | | |
| *Anthony Lake | 155 | 18 | 7S | 37E | 7125 | Report Delayed | | | 16.5 | -- | 11 | 18.7 |
| Olive Lake | 245 | 14 | 9S | 33½E | 6000 | 1/29 | 61.8 | 18.9[b] | 13.3 | 12.7 | 16 | 11.0 |
| Blue Mountain Springs | 133 | 21 | 15S | 35E | 5900 | 1/30 | 59.0 | 19.1 | 10.4 | 9.1 | 21 | 9.6 |
| Arbuckle Mountain | 241 | 33 | 4S | 29E | 5400 | 1/29 | 41.6 | 13.1 | 9.0 | 10.7 | 22 | 7.5 |
| Gold Center | 249 | 21 | 9S | 36E | 5340 | 2/1 | 50.3 | 14.1 | 10.5 | 11.3 | 12 | 7.9 |

*Not located directly on this drainage area.

[b]Greatest February 1 water content recorded since surveys began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
| JOHN DAY RIVER (Cont'd) | | | | | | | | | | | | |
| *Izee Summit | 964 | 28 | 16S | 29E | 5293 | 1/28 | 37.7 | 10.7 | 5.4 | 7.4 | 16 | 5.9 |
| Starr Ridge | 247B | 20 | 15S | 31E | 5156 | 1/28 | 33.6 | 8.7 | 4.6 | 6.0 | 16 | 4.1 |
| Tipton | 142 | 34 | 10S | 35½E | 5100 | Report Delayed | | | -- | -- | 15 | 7.1 |
| Blue Mountain Summit | 141 | 6 | 12S | 36E | 5098 | 2/1 | 39.8 | 11.0 | 6.8 | 7.0 | 17 | 5.9 |
| *Lucky Strike | 223 | 28 | 3S | 32E | 5050 | 1/31 | 39.4 | 10.6 | 10.0 | 10.9 | 12 | 8.2 |
| Beech Creek Summit | 246A | 4 | 12S | 30E | 4800 | 1/28 | 28.8 | 6.8 | 5.1 | 7.6 | 15 | 4.2 |
| Schoolmarm | 248 | 28 | 4S | 34E | 4775 | 1/28 | 20.6 | 5.1[b] | 3.9 | -- | 4 | 2.5 |
| CROOKED RIVER | | | | | | | | | | | | |
| Derr | 343 | 14 | 13S | 23E | 5670 | 1/31 | 38.8 | 10.9 | 7.3 | 10.5 | 14 | 6.4 |
| Ochoco Meadows | 341 | 21 | 13S | 20E | 5200 | 2/1 | 44.6 | 14.5[b] | 10.1 | 10.1 | 22 | 7.1 |
| Mark's Creek | 344 | 25 | 12S | 19E | 4540 | 2/1 | 25.4 | 6.8 | 4.9 | 7.9 | 14 | 3.7 |
| DESCHUTES RIVER | | | | | | | | | | | | |
| New Dutchman Flat | 324A | 21 | 18S | 9E | 6400 | 1/26 | 145.8 | 54.1[b] | 44.0 | 42.6 | 4 | 37.5 |
| Windigo Pass | 744 | 20 | 25S | 6E | 5800 | 1/30 | 128.4 | 45.4[b] | 36.4 | -- | 1 | 36.4 |
| Charlton Lake | 327 | 23 | 21S | 6E | 5750 | Report Delayed | | | -- | -- | 6 | 10.9 |
| Three Creeks Meadows | 331 | 3 | 17S | 9E | 5600 | 1/27 | 77.6 | 25.6[b] | 19.5 | 21.4 | 19 | 11.5 |
| Willamette Pass | 323 | 21 | 24S | 5½E | 5600 | 1/30 | 131.0 | 47.4[b] | 32.6 | -- | 2 | 23.5 |
| Irish-Taylor | 329 | 25 | 20S | 6E | 5500 | 2/2 | 126.3 | 45.2 | -- | -- | 0 | -- |
| *Waldo Lake | 521A | 15 | 21S | 6E | 5500 | 2/1 | 99.1 | 35.5[b] | 20.4 | -- | 6 | 9.6 |

*Not located directly on this drainage area.

[b] Greatest February 1 water content recorded since surveys began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION Number or State | Sec. | Twp. | Range | Elev. | SNOW COVER MEASUREMENTS Date of Survey | Snow Depth (In.) | Water Content (In.) 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESCHUTES RIVER (Cont'd) | | | | | | | | | | | | |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 | 2/1 | 96.3 | 38.2[b] | 26.0 | 33.3 | 21 | 20.1 |
| *Chemult | 834 | 21 | 27S | 8E | 4760 | 2/2 | 56.1 | 18.7 | 12.3 | 11.4 | 15 | 7.7 |
| Crescent Lake | 325 | 11 | 24S | 6E | 4760 | Not measured | | | 14.0 | -- | 15 | 8.8 |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 2/3 | 139.2 | 49.1[b] | 37.4 | 42.1 | 14 | 25.9 |
| Caldwell Ranch | 326 | 30 | 21S | 8E | 4400 | 2/2 | 49.0 | 15.7[b] | 11.0[a] | -- | 9 | 6.1 |
| Rock Creek | 362 | 1 | 4S | 10E | 4200 | Not measured | | | -- | -- | 3 | 8.4 |
| HOOD RIVER | | | | | | | | | | | | |
| Tilly Jane-Mt. Hood | 432 | 15 | 2S | 9E | 6000 | 1/27 | 126.8 | 49.5[b] | 40.4 | 39.6 | 4 | 35.0 |
| Red Hill | 434 | 21 | 1S | 9E | 4400 | 1/27 | 132.6 | 48.7 | 39.2 | 45.8 | 4 | 45.5 |
| Greenpoint Reservoir | 433 | 28 | 2N | 9E | 3400 | Report delayed | | | 14.3 | 29.0 | 4 | 18.9 |
| WILLAMETTE VALLEY STREAMS | | | | | | | | | | | | |
| SANDY RIVER[1] | | | | | | | | | | | | |
| Phlox Point--Mt. Hood | 452 | 6 | 3S | 9E | 5600 | 1/31 | 141.6 | 53.8 | 48.6 | 56.7 | 14 | 36.8 |
| Still Creek | 451 | 25 | 3S | 8½E | 3700 | 1/31 | 72.2 | 27.9 | 22.1 | 31.9 | 14 | 14.8 |
| CLACKAMAS RIVER | | | | | | | | | | | | |
| Peavine Ridge | 591 | 14&15 | 6S | 7E | 3500 | 2/3 | 59.5 | 19.5 | 18.0 | 29.9 | 14 | 11.5 |

*Not located directly on this drainage area.

[1]Not strictly a part of Willamette Drainage; these surveys are indicative of West Slope conditions.

[a]Partly estimated.

[b]Greatest February 1 water content recorded since snurveys began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION Number or State | Sec. | Twp. | Range | Elev. | SNOW COVER MEASUREMENTS Date of Survey | Snow Depth (In.) | Water Content (In.) 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WILLAMETTE VALLEY STREAMS (Cont'd)** | | | | | | | | | | | | |
| SANTIAM RIVERS | | | | | | | | | | | | |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 2/3 | 139.2 | 49.1[b] | 37.4 | 42.1 | 14 | 25.9 |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 | 2/3 | 91.6 | 36.5[b] | 24.1 | 33.8 | 11 | 17.0 |
| Marion Forks | 553 | 38 | 11S | 7E | 2730 | 2/2 | 48.5 | 19.1 | 13.2 | 27.8 | 11 | 10.4 |
| Breitenbush | 551 | 21 | 9S | 7E | 2325 | 2/1 | 26.6 | 9.7 | 5.4 | — | 8 | 3.7 |
| McKENZIE RIVER | | | | | | | | | | | | |
| McKenzie | 531 | 35 | 15S | 7½E | 4800 | 1/31 | 125.4 | 42.7[b] | 34.6 | 41.5 | 8 | 24.3 |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 2/3 | 139.2 | 49.1[b] | 37.4 | 42.1 | 14 | 25.9 |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 | 2/3 | 91.6 | 36.5[b] | 24.1 | 33.8 | 11 | 17.0 |
| MIDDLE FORK WILLAMETTE RIVER | | | | | | | | | | | | |
| *Charlton Lake | 327 | 23 | 21S | 6E | 5750 | Report Delayed | | | -- | -- | 6 | 10.9 |
| Willamette Pass | 323 | 21 | 24S | 5½E | 5600 | 1/30 | 131.0 | 47.4[b] | 32.6 | — | 2 | 23.5 |
| Waldo Lake | 521A | 15 | 21S | 6E | 5500 | 2/1 | 99.1 | 35.5[b] | 20.4 | — | 6 | 9.6 |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 | 2/1 | 96.3 | 38.2[b] | 26.0 | 33.3 | 21 | 20.1 |
| Champion | 522 | 12 | 23S | 1E | 4500 | 2/3 | 102.8 | 42.7[b] | 20.8 | 38.2 | 13 | 15.9 |
| COAST FORK WILLAMETTE RIVER | | | | | | | | | | | | |
| Champion | 522 | 12 | 23S | 1E | 4500 | 2/3 | 102.8 | 42.7[b] | 20.8 | 38.2 | 13 | 15.9 |

*Not located directly on this drainage area.
[b]Greatest February 1 water content recorded since surveys began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION Number or State | Sec. | Twp. | Range | Elev. | SNOW COVER MEASUREMENTS Date of Survey | Snow Depth (In.) | Water Content (In.) 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WILLAMETTE VALLEY STREAMS (Cont'd)** | | | | | | | | | | | | |
| MARY'S RIVER | | | | | | | | | | | | |
| Mary's Peak | 541 | 21 | 12S | 7W | 3320 | Not measured | | | -- | -- | 10 | 5.8 |
| **OREGON COAST DRAINAGE** | | | | | | | | | | | | |
| UMPQUA RIVER | | | | | | | | | | | | |
| Windigo Pass | 744 | 20 | 25S | 6E | 5800 | 1/30 | 128.4 | 45.4[b] | 36.4 | -- | 1 | 36.4 |
| Diamond Lake | 743 | 29 | 27S | 6E | 5315 | 2/1 | 85.6 | 31.1[b] | 19.2 | 23.5 | 22 | 13.6 |
| Whaleback | 7217 | 3 | 31S | 2E | 5140 | 2/6 | 115.0 | 42.0[a] | 22.5 | 31.5 | 12 | 22.2 |
| Champion | 522 | 12 | 23S | 1E | 4500 | 2/3 | 102.8 | 42.7[b] | 20.8 | 38.2 | 13 | 15.9 |
| No. Umpqua nr. Lake Cr. | 742 | 19 | 26S | 6E | 4215 | 2/1 | 57.9 | 22.2[b] | 13.9 | -- | 7 | 6.8 |
| Trap Creek | 741 | 1 | 27S | 4E | 3800 | 1/31 | 57.4 | 19.8 | -- | 19.6 | 5 | 6.5 |
| ROGUE RIVER | | | | | | | | | | | | |
| Wagner Butte | 7213 | 1 | 40S | 1W | 6900 | 2/6 | 67.7 | 24.1[b] | 11.1 | 15.7 | 16 | 10.1 |
| Seven Lakes No. 1 | 7211 | 3 | 34S | 5E | 6800 | Not measured | | | -- | -- | 9 | 24.2 |
| Big Red Mountain | 729 | 31 | 40S | 1W | 6500 | 2/5 | 107.7 | 41.6[b] | 20.3 | -- | 14 | 16.9 |
| Little Red Mountain | 7210 | 25 | 40S | 2W | 6500 | 2/6 | 85.7 | 29.4[b] | 14.5 | -- | 13 | 11.0 |
| *Park Headquarters | 85[illegible] | 8 | 31S | 6E | 6450 | 1/31 | 183.8 | 67.7[b] | 49.6 | 39.8 | 6 | 33.3 |
| Scragg Mountain | 7220 | 9 | 47N | 10W | 6200 | 2/4 | 109.6 | 44.4[b] | 23.9 | 27.7[c] | 10 | 16.5 |

*Not located directly on this drainage area.
[a] Telegraphic.
[b] Greatest February 1 water content recorded since surveys began.
[c] February 11.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION Number or State | Sec. | Twp. | Range | Elev. | SNOW COVER MEASUREMENTS Date of Survey | Snow Depth (In.) | Water Content (In.) 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROGUE RIVER (Cont'd) | | | | | | | | | | | | |
| Seven Lakes No. 2 | 7212 | 26 | 33S | 5E | 6200 | 1/30 | 133.7 | 48.1[b] | -- | -- | 9 | 18.2 |
| *Annie Spring | 831 | 19 | 31S | 6E | 6018 | 1/31 | 155.0 | 54.9[b] | 39.0 | 29.0 | 19 | 26.7 |
| *Fourmile Lake | 7223 | 9 | 36S | 5E | 6000 | 1/25 | 92.3 | -- | -- | -- | 0 | -- |
| Grayback Peak | 727 | 9 | 40S | 5W | 6000 | 1/30 | 111.0 | 38.5[b] | 13.2 | -- | 14 | 13.5 |
| Billie Creek Divide | 722 | 30 | 36S | 5E | 5300 | 1/25 | 85.4 | 33.7[b] | 14.0 | 20.0 | 20 | 14.2 |
| Whaleback | 7217 | 3 | 31S | 2E | 5140 | 2/6 | 115.0 | 42.0[a] | 22.5 | 31.5 | 12 | 22.2 |
| Hobart Lake | 7221 | 17 | 40S | 3E | 5010 | 1/31 | 25.6 | 8.9 | 6.4 | 9.0 | 4 | 5.6 |
| *Hyatt Prairie Res. | 723 | 15 | 39S | 3E | 4900 | 1/29 | 44.2 | 13.3 | 5.8 | 9.9 | 17 | 6.6 |
| Fish Lake | 725 | 3 | 37S | 4E | 4865 | 1/30 | 47.6 | 16.0 | 6.8 | 13.8 | 18 | 8.1 |
| Siskiyou Summit | 728 | 17 | 40S | 2E | 4630 | 2/2 | 43.6 | 14.9[b] | 8.8 | 10.4 | 15 | 5.1 |
| Althouse | 7216 | 17 | 41S | 7W | 4400 | 2/1 | 49.1 | 20.7[b] | 4.3 | 11.4 | 13 | 3.0 |
| Silver Burn | 7219 | 30 | 30S | 4E | 3720 | 1/31 | 57.4 | 19.1[b] | 11.7 | 18.3 | 14 | 7.7 |
| South Fork Canal | 7218 | 12 | 33S | 3E | 3500 | 1/31 | 23.8 | 8.9 | 3.4 | 11.1 | 14 | 2.8 |
| KLAMATH LAKE BASIN | | | | | | | | | | | | |
| Seven Lakes No. 1 | 7211 | 3 | 34S | 5E | 6800 | Not measured | | | -- | -- | 9 | 24.2 |
| Park Headquarters | 838 | 8 | 31S | 6E | 6450 | 1/31 | 183.8 | 67.7 | 49.6 | 39.8 | 6 | 33.3 |
| Seven Lakes No. 2 | 7212 | 26 | 33S | 5E | 6200 | 1/30 | 133.7 | 48.1[b] | -- | -- | 9 | 18.2 |
| Annie Spring | 831 | 19 | 31S | 6E | 6018 | 1/31 | 155.0 | 54.9[b] | 39.0 | 29.0 | 19 | 26.7 |
| Fourmile Lake | 7223 | 9 | 36S | 5E | 6000 | 1/25 | 92.3 | -- | -- | -- | 0 | -- |
| Strawberry | 837 | 4 | 40S | 16E | 5600 | 1/29 | 45.8 | 14.0[b] | 6.4 | -- | 9 | 5.6 |
| *Quartz Mountain (COPCO) | | 33 | 37S | 16E | 5504 | 2/6 | 29.5 | 6.5 | -- | 8.0 | 21 | 5.4 |

*Not located directly on this drainage area. [a]Telegraphic.
(COPCO)-Water content determined by melting a measured sample (The California Oregon Power Co.'s Station)
[b]Greatest February 1 water content recorded since surveys began.

## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
| **KLAMATH LAKE BASIN (Cont'd)** | | | | | | | | | | | | |
| Sun Mountain | 836 | 22 | 32S | 7½E | 5350 | 1/29 | 101.1 | 33.1 | 24.5 | 18.9 | 14 | 16.6 |
| *Quartz Mountain | 811 | 2 | 38S | 16E | 5320 | 2/3 | 40.0 | 11.3 | 5.6 | 6.0 | 22 | 4.9 |
| Billie Creek Divide | 722 | 30 | 36S | 5E | 5300 | 1/25 | 85.4 | 33.7[b] | 14.0 | 20.0 | 20 | 14.2 |
| Crowder Flat | Calif. | 30 | 47N | 11E | 5200 | | Not measured | | 2.5 | 2.5 | 12 | 2.7 |
| Taylor Butte | 842 | 16 | 33S | 11E | 5100 | | Not measured | | 5.0 | -- | 14 | 3.4 |
| Lake of the Woods | 835 | 11 | 37S | 5E | 4960 | 1/31 | 52.4 | 21.5[b] | 6.0 | 13.7 | 15 | 6.2 |
| Hyatt Prairie Res. | 723 | 15 | 39S | 3E | 4900 | 1/29 | 44.2 | 13.3 | 5.8 | 9.9 | 17 | 6.6 |
| Gerber | 839 | 12 | 39S | 3E | 4850 | 2/1 | 16.8 | 5.1[b] | -- | 3.5 | 2 | 4.2 |
| Bly 101 Ranch (COPCO) | | 22 | 35S | 14E | 4800 | 1/31 | 18.5 | 3.5 | 2.5[a] | 2.9 | 25 | 2.0 |
| Chemult | 834 | 21 | 27S | 8E | 4760 | 2/2 | 56.1 | 18.7 | 12.3 | 11.4 | 15 | 7.7 |
| Yamsey (COPCO) | | 20 | 31S | 11E | 4600 | | Not measured | | 4.4 | 4.6 | 21 | 2.3 |
| Kirk (COPCO) | | 1 | 33S | 7E | 4533 | 1/31 | 39.0 | 9.5 | 7.4 | 8.5 | 25 | 5.3 |
| Beatty (COPCO) | | 22 | 36S | 12E | 4300 | 1/31 | 0.0 | 0.0 | 0.0 | 0.4 | 24 | 0.8 |
| Crystal (COPCO) | | 26 | 34S | 6E | 4200 | 1/31 | 47.5 | 16.9[b] | 6.5 | 7.8 | 22 | 6.2 |
| Harriman Lodge (COPCO) | | 3 | 36S | 6E | 4200 | 1/31 | 31.2 | 8.2 | 3.6 | 5.2 | 25 | 3.7 |
| Chiloquin (COPCO) | | 34 | 34S | 7E | 4187 | 1/31 | 22.0 | 6.2 | 2.6 | 6.5 | 22 | 2.2 |
| Fort Klamath (COPCO) | | 22 | 33S | 7½E | 4150 | 1/31 | 31.2 | 7.9 | 4.2 | 7.7 | 25 | 3.8 |
| **GOOSE LAKE BASIN** | | | | | | | | | | | | |
| Camas Creek | 911A | 5 | 39S | 21E | 5720 | 1/30 | 51.6 | 16.1 | 7.5 | 6.8 | 13 | 6.9 |
| Strawberry | 837 | 4 | 40S | 16E | 5600 | 1/29 | 45.8 | 14.0[b] | 6.4 | -- | 9 | 5.6 |

*Not located directly on this drainage area.

(COPCO)-Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

[a]Partly estimated.

[b]Greatest February 1 water content recorded since surveys began.

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | | Same Approx. Date 1951 | Same Approx. Date 1950 | Years of Record | Av. Water Content (Inches) |
| | | | | | | | | 1952 | | | | |
| GOOSE LAKE BASIN (Cont'd) | | | | | | | | | | | | |
| Quartz Mountain (COPCO) | | 33 | 37S | 16E | 5504 | 2/6 | 29.5 | 6.5 | -- | 8.0 | 21 | 5.4 |
| Quartz Mountain | 811 | 2 | 38S | 16E | 5320 | 2/3 | 40.0 | 11.3 | 5.6 | 6.0 | 22 | 4.9 |
| INTERIOR DRAINAGE | | | | | | | | | | | | |
| WARNER LAKE BASIN | | | | | | | | | | | | |
| *Camas Creek | 911A | 5 | 39S | 21E | 5720 | 1/30 | 51.6 | 16.1 | 7.5 | 6.8 | 13 | 6.9 |
| CHEWAUCAN RIVER | | | | | | | | | | | | |
| *Quartz Mountain | 811 | 2 | 38S | 16E | 5320 | 2/3 | 40.0 | 11.3 | 5.6 | 6.0 | 22 | 4.9 |
| SILVER LAKE BASIN | | | | | | | | | | | | |
| Silver Creek | 942 | 25&26 | 29S | 13E | 4900 | Not measured | | | 4.7 | 4.7 | 12 | 2.9 |
| HARNEY BASIN | | | | | | | | | | | | |
| Izee Summit | 964 | 28 | 16S | 29E | 5293 | 1/28 | 37.7 | 10.7 | 5.4 | 7.4 | 16 | 5.9 |
| Idlewild Camp | 961A | 33 | 20S | 31E | 5200 | 1/29 | 35.7 | 9.8[b] | 4.4 | 3.2 | 19 | 3.8 |
| Starr Ridge | 247B | 20 | 15S | 31E | 5156 | 1/28 | 33.6 | 8.7 | 4.6 | 6.0 | 16 | 4.1 |
| Rock Spring | 134 | 23 | 18S | 32E | 5100 | 1/27 | 31.1 | 8.2 | 4.3 | 4.2 | 16 | 4.4 |
| Stinking Water | 135 | 33 | 21S | 34E | 4800 | 1/30 | 25.9 | 6.9 | 4.2 | 4.9 | 14 | 3.4 |

*Not located directly on this drainage area.
(COPCO)-Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).
[b]Greatest February 1 water content recorded since surveys began.

## OREGON SNOW SURVEYS - ABOUT JANUARY 15, 1952

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | | | | | | | | | Same Approx. Date | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | 1951 | 1950 | Years of Record | Av. Water Content (Inches) |
| **DESCHUTES RIVER** | | | | | | | | | | | | |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 | 1/16 | 99.6 | 32.0 | 16.3 | -- | 1 | 16.3 |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 1/15 | 123.8 | 39.2 | 23.8 | -- | 1 | 23.8 |
| **WILLAMETTE VALLEY STREAMS** | | | | | | | | | | | | |
| SANTIAM RIVERS | | | | | | | | | | | | |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 1/15 | 123.8 | 39.2 | 23.8 | -- | 1 | 23.8 |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 | 1/15 | 90.2 | 27.5 | 12.9 | -- | 1 | 12.9 |
| Marion Forks | 553 | 28 | 11S | 7E | 2730 | 1/15 | 52.2 | 13.2 | 6.1 | -- | 1 | 6.1 |
| McKENZIE RIVER | | | | | | | | | | | | |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 1/15 | 123.8 | 39.2 | 23.8 | -- | 1 | 23.8 |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 | 1/15 | 90.2 | 27.5 | 12.9 | -- | 1 | 12.9 |
| MIDDLE FORK WILLAMETTE RIVER | | | | | | | | | | | | |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 | 1/16 | 99.6 | 32.0 | 16.3 | -- | 1 | 16.3 |
| **UMPQUA RIVER** | | | | | | | | | | | | |
| Diamond Lake | 743 | 29 | 27S | 6E | 5315 | 1/15 | 92.3 | 26.3 | -- | -- | 1 | 18.6 |
| **ROGUE RIVER** | | | | | | | | | | | | |
| Siskiyou Summit | 728 | 17 | 40S | 2E | 4630 | 1/18 | 49.7 | 13.1 | 1.7 | 8.2 | 2 | 4.9 |
| **KLAMATH LAKE BASIN** | | | | | | | | | | | | |
| Lake of the Woods | 835 | 11 | 37S | 5E | 4960 | 1/15 | 54.1 | 13.3 | -- | -- | 0 | -- |
| Gerber | 839 | 12 | 39S | 3E | 4850 | 1/15 | 18.4 | 5.0 | 1.2 | 2.9 | 2 | 2.0 |

OREGON SNOW SURVEYS - ABOUT JANUARY 1, 1952 (DELAYED DATA)

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | | |
| | | | | | | | | | Same Approx. Date | | | |
| | Number or State | Sec. | Twp. | Range | Elev. | Date of Survey | Snow Depth (In.) | 1952 | 1951 | 1950 | Years of Record | Av. Water Content (Inches) |
| **MALHEUR RIVER** | | | | | | | | | | | | |
| Stinking Water | 135 | 33 | 21S | 34E | 4800 | 1/8 | 22.1 | 4.8 | -- | -- | 9 | 1.5 |
| **POWDER RIVER** | | | | | | | | | | | | |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 | 12/31 | 62.4 | 15.5 | 8.8 | 8.9 | 12 | 10.9 |
| Goodrich Lake | 157 | 34&35 | 8S | 38E | 6775 | Not Measured | | | 10.5 | 14.2 | 4 | 14.7 |
| Eilertson Meadows | 151B | 18 | 8S | 38E | 5400 | Not Measured | | | 4.2 | -- | 9 | 3.4 |
| **GRANDE RONDE RIVER** | | | | | | | | | | | | |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 | 12/31 | 62.4 | 15.5 | 8.8 | 8.9 | 12 | 10.9 |
| Beaver Reservoir | 188 | 8 | 5S | 37E | 5340 | 1/7 | 27.2 | 5.1 | 3.9 | 8.1[a] | 12 | 5.2 |
| **JOHN DAY RIVER** | | | | | | | | | | | | |
| *Anthony Lake | 155 | 18 | 7S | 37E | 7125 | 12/31 | 62.4 | 15.5 | 8.8 | 8.9 | 12 | 10.9 |
| **ROGUE RIVER** | | | | | | | | | | | | |
| Scragg Mountain | 7220 | 9 | 47N | 10W | 6200 | Not Measured | | | 2.4 | 8.0 | 9 | 10.1 |
| **KLAMATH LAKE BASIN** | | | | | | | | | | | | |
| Yamsey (COPCO) | | 20 | 31S | 11E | 4600 | Not Measured | | | 0.0 | 1.8 | 22 | 1.1 |
| Kirk (COPCO) | | 1 | 33S | 7E | 4533 | 1/1 | 23.0 | 7.0 | 1.2 | 2.3 | 24 | 2.4 |
| Harriman Lodge (COPCO) | | 3 | 36S | 6E | 4200 | 12/31 | 27.0 | 6.5 | 0.2 | 1.2 | 24 | 1.6 |
| **HARNEY BASIN** | | | | | | | | | | | | |
| Stinking Water | 135 | 33 | 21S | 34E | 4800 | 1/8 | 22.1 | 4.8 | -- | -- | 9 | 1.5 |

[a] Telegraphic.

WILLAMETTE VALLEY SNOW PROFILES - ABOUT FEBRUARY 1, 1952

| STREAM BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | Past Record | |
| | | | | | | Date of | Snow Depth | | Same Approx. Date | | Years of | Av. Water Content |
| | Elev. | Number | Sec. | Twp. | Range | Survey | (In.) | 1952 | 1951 | 1950 | Record | (Inches) |
| SANDY RIVER[1] | | | | | | | | | | | | |
| Phlox Point-Mt.Hood | 5600 | 452 | 6 | 3S | 9E | 1/31 | 141.6 | 53.8 | 48.6 | 56.7 | 14 | 36.8 |
| Still Creek | 3700 | 451 | 25 | 3S | 8½E | 1/31 | 72.2 | 27.9 | 22.1 | 31.9 | 14 | 14.8 |
| CLACKAMAS RIVER | | | | | | | | | | | | |
| Peavine Ridge | 3500 | 591 | 14&15 | 6S | 7E | 2/3 | 59.5 | 19.5 | 18.0 | 29.9 | 14 | 11.5 |
| Clackamas Lake | 3400 | 592 | 35 | 5S | 8½E | — | — | — | — | — | — | — |
| Big Bottom | 2118 | * | 25 | 6S | 7E | 2/3 | 27.7 | 9.3 | 7.7 | — | — | — |
| Lake Harriet | 2045 | * | 4 | 6S | 7E | 1/31 | 25.2 | 8.7 | 3.2 | — | — | — |
| SANTIAM RIVERS | | | | | | | | | | | | |
| Hogg Pass | 4755 | 351 | 24 | 13S | 7½E | 2/3 | 139.0 | 48.5 | 37.4 | 42.1 | 14 | 25.9 |
| Santiam Junction | 3990 | 552 | 14 | 13S | 7E | 2/3 | 91.5 | 36.5 | 24.1 | 33.8 | 11 | 17.0 |
| Marion Forks | 2730 | 553 | 28 | 11S | 7E | 2/3 | 48.5 | 19.0 | 13.2 | 27.8 | 11 | 10.4 |
| Breitenbush | 2325 | 551 | 21 | 9S | 7E | 2/1 | 26.6 | 9.7 | 5.4 | — | 8 | 3.7 |
| Whitewater Bridge | 2175 | * | 28 | 10S | 7E | 2/3 | 26.5 | 10.8 | 6.0 | 20.5 | — | — |
| Detroit (new town) | 1500+ | * | 1 | 10S | 5E | 2/3 | 17.5 | 6.7 | Sno-line | 11.7 | — | |
| Detroit Dam | 1580 | * | 7 | 10S | 5E | 2/3 | T | T | 0.0 | 7.3 | | |
| Mill City | 826 | * | 29 | 9S | 3E | 2/3 | 0.0 | 0.0 | 0.0 | 3.0 | | |
| Snow Line: | | | | | | | | | | | | |

NOTE: Standard Snow Course measurements unless otherwise indicated.

*Auxiliary snow station - average of 3 to 5 samples - measurements taken at same point each survey.

[1]Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

## WILLAMETTE VALLEY SNOW PROFILES - ABOUT FEBRUARY 1, 1952

| STREAM BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | Past Record | |
| | | | | | | | | | Same Approx. Date | | | |
| | Elev. | Number | Sec. | Twp. | Range | Date of Survey | Snow Depth (In.) | 1952 | 1951 | 1950 | Years of Record | Av. Water Content (Inches) |
| **McKENZIE RIVER** | | | | | | | | | | | | |
| McKenzie | 4800 | 531 | 35 | 15S | 7½E | 1/31 | 125.4 | 42.7 | 34.6 | 41.5 | 8 | 24.3 |
| Hogg Pass | 4755 | 351 | 24 | 13S | 7½E | 2/3 | 139.0 | 48.5 | 37.4 | 42.1 | 14 | 25.9 |
| Santiam Junction | 3990 | 552 | 14 | 13S | 7E | 2/3 | 91.5 | 36.5 | 24.1 | 33.8 | 11 | 17.0 |
| Dead Horse Grade | 3800 | * | 13 | 16S | 7E | 1/31 | 67.7 | 25.3 | 12.7 | 37.7 | | |
| White Branch Slide | 2800 | * | 15 | 16S | 7E | 1/31 | 39.0 | 12.3 | 5.7 | 21.7 | | |
| Lost Creek Ranch | 1956 | * | 24 | 16S | 6E | 1/31 | 31.3 | 12.7 | -- | | | |
| McKenzie Bridge | 1372 | * | 13 | 16S | 5E | 1/31 | 17.7 | 6.7 | 0.0 | | | |
| Vidae | 800 | * | 28 | 16S | 2E | 1/31 | 0.0 | 0.0 | | | | |
| Snow Line: At McKenzie High School. | | | | | | | | | | | | |
| **MIDDLE FORK WILLAMETTE RIVER** | | | | | | | | | | | | |
| Willamette Pass | 5600 | 323 | 21 | 24S | 5½E | 1/30 | 131.0 | 47.4 | 32.6 | -- | 2 | 23.5 |
| Waldo Lake | 5500 | 521A | 15 | 21S | 6E | 2/1 | 99.1 | 35.5 | 20.4 | -- | 6 | 9.6 |
| Hiway Summit | 5128± | * | 7 | 23S | 6E | -- | -- | -- | -- | -- | -- | -- |
| Cascade Summit | 4880 | 321 | 7 | 23S | 6E | 2/1 | 96.3 | 38.2 | 26.0 | 33.3 | 21 | 20.1 |
| Champion | 4500 | 522 | 12 | 23S | 1E | 2/3 | 102.8 | 42.7 | 20.8 | 38.2 | 13 | 15.9 |
| Salt Creek Falls | 4000 | * | 33 | 22S | 6E | 2/1 | 53.6 | 21.4 | 12.6 | 27.3 | | |
| Railroad Overpass | 2750 | * | 27 | 22S | 5E | 2/1 | 20.2 | 7.6 | 2.0 | 15.6 | | |
| McCredie Spring | 2120 | * | 36 | 21S | 4E | 2/1 | 9.3 | 3.0 | T | 9.2 | | |
| Oakridge | 1310 | * | 16 | 21S | 3E | 2/1 | 0.0 | 0.0 | 0.0 | 2.4 | | |
| Meridian Dam | 750 | * | 13 | 19S | 1W | 2/1 | 0.0 | 0.0 | | | | |
| Snow Line: 2 miles above Oakridge - about 1550 feet. | | | | | | | | | | | | |

NOTE: Standard Snow Course measurements unless otherwise indicated.
*Auxiliary snow station - average of 3 to 5 samples - measurements taken at same point each survey.

## WILLAMETTE VALLEY SNOW PROFILES - ABOUT FEBRUARY 1, 1952

| STREAM BASIN and SNOW COURSE | LOCATION | | | | | SNOW COVER MEASUREMENTS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Water Content (In.) | | | Past Record | |
| | | | | | | Date of | Snow Depth | Same Approx. Date | | | Years of | Av. Water Content |
| | Elev. | Number | Sec. | Twp. | Range | Survey | (In.) | 1952 | 1951 | 1950 | Record | (Inches) |
| **COAST FORK WILLAMETTE RIVER (Row River)** | | | | | | | | | | | | |
| Champion | 4500 | 522 | 12 | 23S | 1E | 2/3 | 102.8 | 42.7 | 20.8 | 38.2 | 15 | 15.9 |
| Golden Curry Creek | 3136 | * | 1 | 23S | 1E | 2/3 | 37.3 | 14.7 | 7.0 | 19.7 | | |
| Nelson Creek | 2864 | * | 36 | 22S | 1E | -- | -- | -- | -- | 21.3 | -- | -- |
| Weaver Creek | 2440 | * | 35 | 22S | 1E | 2/3 | 12.0 | 4.5 | 1.7 | -- | | |
| Lund Park | 1740 | * | 22 | 22S | 1E | 2/3 | 13.7 | 4.5 | 0.0 | 9.3 | | |
| Layng Creek R.S. | 1200 | * | 31 | 21S | 1E | 2/3 | 0.0 | 0.0 | 0.0 | 3.3 | T | |
| Snow Line: At about 1600 feet elevation | | | | | | | | | | | | |
| **MARY'S RIVER** | | | | | | | | | | | | |
| Mary's Peak | 3620 | 541 | 21 | 12S | 7W | Not measured | | | -- | -- | 10 | 5.8 |

NOTE: Standard Snow Course measurements unless otherwise indicated.
*Auxiliary snow station - average of 3 to 5 samples - measurements taken at same point each survey.

OREGON PRECIPITATION[a]

| DRAINAGE DIVISIONS | CURRENT YEAR Oct. 1, 1951-Feb. 1, 1952 | | LAST YEAR Oct. 1, 1950-Feb. 1,1951 | |
|---|---|---|---|---|
| | P | D | P | D |
| Southeastern | 5.89 | + 1.92 | 4.77 | + 0.79 |
| Southcentral | 5.77 | + 1.56 | 6.79 | + 2.49 |
| Central | 5.92 | + 0.88 | 8.78 | + 3.67 |
| Columbia River | 8.73 | + 0.66 | 12.93 | + 5.07 |
| Wallowa Mountains | 8.01 | + 0.16 | 7.17 | - 0.08 |
| Blue Mountains | 7.21 | + 0.29 | 7.54 | + 1.02 |
| Southern | 20.70 | + 7.08 | 23.01 | +10.13 |
| Willamette Valley | 34.07 | + 5.57 | 45.44 | +17.56 |

P - Inches Precipitation D - Inches Departure from Normal

Southeastern - Malheur and Owyhee drainages.

Southcentral - Interior Basin drainages and Goose Lake.

Central - Deschutes and Crooked drainages.

Columbia River - Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages.

Wallowa Mountains - Imnaha, Wallowa, Catherine, Eagle, and Pine drainages.

Blue Mountains - Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages.

Southern - Umpqua, Rogue and Klamath drainages.

Willamette Valley - All Willamette drainages.

[a]Preliminary data computed from Weather Bureau records.

The following organizations cooperate in the Oregon snow survey work:

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon Agricultural Experiment Station
- Oregon State Engineer and corps of State Watermasters
- Oregon State Highway Engineers

FEDERAL
- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - Indian Service
  - National Park Service
- Department of National Defense
  - Army Engineer Corps

PUBLIC UTILITIES
- California-Pacific Utilities Company
- Portland General Electric Company
- The California Oregon Power Company

MUNICIPALITIES
- City of Baker
- City of Corvallis
- City of LaGrande
- City of The Dalles

IRRIGATION DISTRICTS
- Associated Ditch Companies
- Central Oregon Irrigation District
- Deschutes County Municipal Improvement District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Jordan Valley Irrigation District
- Lakeview Water Users Incorporated
- Medford Irrigation District
- Ochoco Irrigation District
- Rogue River Irrigation District
- Talent Irrigation District
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- South Wasco Soil Conservation District
- The Crag Rats, Hood River, Oregon

Federal - State - Private

COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"